

#### 4CPS-112 ANTIMICROBIAL STEWARDSHIP PROGRAMME INTERVENTIONS IN INTENSIVE CARE UNIT

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**Background and Importance** The antimicrobial stewardship programmes are essential to achieve appropriate use of antibiotics. The objectives of this multidisciplinary programme (MP) are to optimise the prescription of these drugs to improve patient's prognosis, to minimise adverse effects, to control the emergence of antimicrobial resistance and to ensure the use of cost-effective treatments. The intensive care units are complex ones with a high percentage of patients with antibiotic treatment.<sup>1</sup>

**Aim and Objectives** To describe the interventions carried out by a MP in terms of antimicrobial stewardship and its acceptance in an intensive care unit (ICU).

**Material and Methods** A retrospective descriptive study was conducted between January 2023 and September 2023 in a tertiary hospital. Intensivists, pharmacists and microbiologists composed the MP.

Variables included were number of ICU admission, number of patients with antibiotic prescription, number of interventions, type of interventions and acceptance rate. This MP met daily to review antibiotics prescriptions in ICU. The interventions were classified into nine groups: therapeutic indication or addition of another antibiotic, discontinuation, therapeutic window, de-escalating, therapeutic drug monitoring (TDM), dosage adjustment, microbiological cultivation and central venous or urinary catheters replacement.

**Results** A total of 4770 clinical episodes were reviewed of which 47.2% of cases involved at least one antibiotic. The MP performed 947 interventions. The 17,7% was related with therapeutic indication or addition of another antibiotic, the 16,3% to discontinuation the antibiotic, the 3,3% to therapeutic window, the 20,1% to de-escalating, the 12,0% to TDM, the 12,7% to dose adjustment, the 15,2% to microbiological cultivation, the 0,4% to central venous catheter replacement and the 3,4% to urinary catheter replacement. 98,2% of the suggestions were accepted.

**Conclusion and Relevance** The antimicrobial stewardship programme interventions obtained an acceptance ratio >98% in that period. This programme has been included in the daily clinical practice in ICU being essential to ensure the appropriate use of antimicrobial therapy. The integration of a clinical pharmacist in this MP increases the optimisation of the antimicrobial treatment particularly in terms of efficacy, medication safety through dose adjustment and TDM, and cost effectiveness.

#### REFERENCES AND/OR ACKNOWLEDGEMENTS

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**Conflict of Interest** No conflict of interest.

#### 4CPS-113 THE EFFECTIVENESS OF JANUS KINASE INHIBITORS IN MODERATE TO SEVERE ACTIVE RHEUMATOID ARTHRITIS

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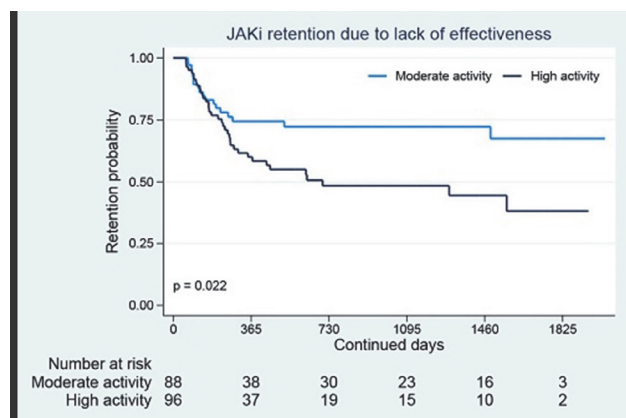
**Background and Importance** Janus kinase inhibitors (JAKi) are indicated for the treatment of moderate to severe active rheumatoid arthritis (RA). Their mechanism of pharmacological action depends on their competition with adenosine triphosphate (ATP) for the catalytic site of Janus Kinases. ATP levels have been correlated with the systemic cytokine storm induction and inflammation. To date, there is limited real-world data assessing the influence of RA disease activity on the effectiveness of JAKi treatment.

**Aim and Objectives** To evaluate the influence of RA disease activity on the effectiveness of JAKi treatment, within real-world scenarios.

**Material and Methods** This was a retrospective study (2017/09–2023/09) that included all RA patients who were treated with tofacitinib, baricitinib, upadacitinib, or filgotinib at a tertiary hospital.

Treatment retentions, for the discontinuation reason of lack of effectiveness, were examined through the Cox model and the Kaplan-Meier estimate. The Cox model was applied to analyse the disease activity as a potential predictive factor that could influence treatment retention. The Disease Activity Score 28-joints using C-Reactive Protein (DAS28-CRP) was considered for measuring disease activity. The Kaplan-Meier estimate was used to evaluate treatment retention curves, with the log-rank test employed for comparison. Statistical analyses were performed utilising STATA software.

**Results** 184 JAKi treatments were included, corresponding to 123 RA patients (86% women, 63±13 years old). At JAKi treatment initiation, RA disease activities were: moderate activity (47.8%) and high activity (52.2%).



Abstract 4CPS-113 Figure 1

The Cox model's analysis indicated that high activity significantly increased the risk of treatment discontinuation due to lack of effectiveness (HR: 1.91;  $p=0.025$ ). The Kaplan-Meier estimate showed that discontinuation rates due to lack of effectiveness were greater for high activity compared to moderate activity ( $p=0.022$ ; figure 1).

**Conclusion and Relevance** Our findings suggest statistically significant differences in the influence of high RA disease activity compared to moderate activity on the effectiveness of JAKi treatment. A high activity was significantly linked to an increased risk of treatment discontinuation due to lack of effectiveness.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

### 4CPS-114 SUBLINGUAL ADMINISTRATION OF TACROLIMUS IN LIVER TRANSPLANT PATIENT WITH INTESTINAL MALABSORPTION: A CASE REPORT

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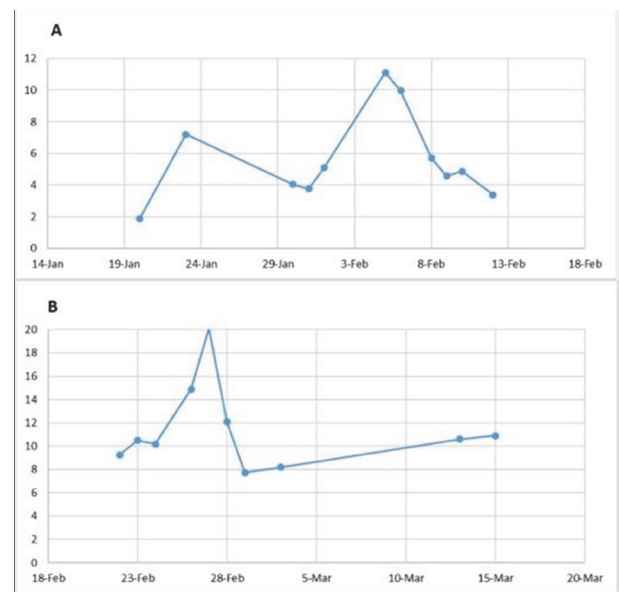
**Background and Importance** A combination of a calcineurin inhibitor with an antimetabolite and corticosteroids is the standard immunosuppression regime after liver transplant. Therapeutic drug monitoring (TDM) is recommended for tacrolimus due to its narrow therapeutic margin in order to avoid transplant rejection.

**Aim and Objectives** To report a case of a liver-transplant patient that required sublingual tacrolimus owing to intestinal malabsorption to reach therapeutic levels.

**Material and Methods** A 37-year-old woman with history of obesity and bariatric surgery (gastric bypass with union of ileum to stomach) was admitted to our centre in January 2023 with the diagnosis of fulminant liver failure and received an emergency transplant. Prolonged-release tacrolimus tablets 0.1 mg/kg/day (with subsequent adjustments according to blood trough concentrations), intravenous mycophenolate mofetil 1000 mg/12 hours, and intravenous methylprednisolone were initiated. During her evolution, she presented sustained sub-therapeutic tacrolimus concentrations (target trough concentrations for the first 4 weeks post-transplant when combined with mycophenolate and corticosteroids: 6–10 ng/mL) (figure 1A), as well as elevated levels of transaminases, which together with a biopsy confirmed a type II acute rejection and was re-transplanted in February 2023. Given the suspicion of tacrolimus malabsorption due to her history of bariatric surgery, alternatives were sought. A systematic review<sup>1</sup> concluded that sublingual administration of immediate-release tacrolimus was an adequate strategy to reach therapeutic levels in lung and kidney transplant patients with a 1:2 sublingual: oral ratio. The Pharmacy Service proposed switching to immediate-release tacrolimus capsules and sublingual administration.

**Results** 3 mg/12 hours sublingual tacrolimus was started (previous prolonged-release tacrolimus dose: 12 mg/day) with subsequent adjustment according to TDM results. Capsules content was deposited under patient's tongue, avoiding swallowing for 15 minutes and drinking liquids for 30 minutes. Sustained therapeutic levels of tacrolimus were reached (figure

1B) and a progressive decrease in transaminases was observed until reaching normal range values.



Abstract 4CPS-114 Figure 1

**Conclusion and Relevance** Sublingual administration of tacrolimus could be a feasible strategy to reach therapeutic levels in patients with intestinal malabsorption and avoid possible rejections.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

1. Pennington CA, Park JM. Sublingual tacrolimus as an alternative to oral administration for solid organ transplant recipients. *Am J Heal Pharm.* 2015;**72**(4):277–84.

**Conflict of Interest** No conflict of interest.

### 4CPS-115 CHRONIC MIGRAINE REVERSION AND SYMPTOMATIC MEDICATION REDUCTION WITH FREMANEZUMAB

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**Background and Importance** The diagnosis of chronic migraine (CM) includes headaches for more than 15 days per month for at least three months and suffering this pain with migraine criteria for at least eight days. The clinical manifestations of CM have a high impact on the quality of life of patients. Failure to control the pain can lead to a high risk of treatment abuse. Monoclonal antibodies such as fremanezumab are used as prophylactic treatment.

**Aim and Objectives** The objectives of this real-life study were to analyse the reversion of CM to episodic (EM) and evaluate the benefit on the symptomatology in young patients treated with botulinum toxin-resistant fremanezumab.

**Material and Methods** Patients aged 18–65 years diagnosed with CM and under neurological follow-up, treated for at least 3 months with fremanezumab as a 225mg monthly injection were interviewed. The data to assess effectiveness